



CC APPROVAL: 05/02/2018  
ACADEMIC SENATE APPROVAL: 05/09/2018  
BOT APPROVAL: 06/11/2018  
STATE ID: CCC000594690  
EFFECTIVE TERM: Spring 2019

## College of the Sequoias Course Outline of Record

**SUBJECT AREA AND COURSE NUMBER:** ASCI 202

**COURSE TITLE:** APPLIED FOOD SAFETY MGMT

**UNITS/HOURS**

**Units:** 3

**Hours:**

**Lecture Hours Per Week:** 3

**Lab Hours Per Week:** 1

**Total Lecture Hours Per Semester:** 52.5

**Total Lab Hours Per Semester:** 17.5

**Activity Hours Per Week:**

**Total Activity Hours Per Semester:**

**Total Hours Per Week:** 4

**Total Contact Hours Per Semester:** 70

**TOP CODE:** 0102.00 - Animal Science\*

**SAM CODE:** Clearly Occupational

**Cross-Listed Courses:**

**CATALOG COURSE DESCRIPTION:**

Overview of the government entities regulating food safety for the US Federal Government. Basic understanding of pathogenic organisms and how to identify/test them from a farm perspective, plant perspective, and packing perspective. Understanding and implementing HACCP and PCQI in an applied agricultural setting from farm to fork.

**REQUISITES:**

NONE

**FIELD TRIP REQUIREMENTS:** Not Required

**GRADING:** -

**REPEATABLE:**

**TRANSFERABLE:**

\*Approved\* Course does not transfer  
Not transferable

**METHODS OF INSTRUCTION:**

Methods of instruction may include, but are not limited to, the following:

- \* Lecture and/or Discussion
- \* Laboratory

## **METHODS OF EVALUATION:**

A student's grade will be based on multiple measures of performance unless the course requires no grade. Multiple measures may include, but are not limited to, the following:

- Skill demonstrations
- Essay quizzes or exams
- Written essays or extended papers
- Multiple choice tests
- Short answer quizzes or exams
- Oral presentations
- Project
- Problem solving quizzes or exams

## **COURSE TOPICS:**

1. Overview of Hazard Analysis Critical Control Points (HACCP)
2. Introduction to Food Microbiology
3. Microbial Growth, Survival, and Death in Food Products
4. Microbial Spores and their Significance
5. Detection and Enumeration of Microbes in Food
6. Rapid and Automated Microbial Methods
7. Pathogenic Microbiological Organisms of Concern from a Farm, Packer, and Processor Perspective
8. Chemical, Physical, and Economically Motivated Hazards
9. Importance of Preventative Controls Qualified Individual (PCQI)
10. Hazard Analysis and Preventative Controls Determination
11. Process Preventive Controls
12. Food Allergen Preventive Controls
13. Sanitation Preventive Controls
14. Supply Chain Preventive Controls
15. Verification and Validation Procedures
16. Record Keeping Procedures
17. Developing a Recall Plan
18. Developing a Food Safety Plan

## **OUTCOMES:**

### **Course Objectives**

The main concepts for this course will ask students to...

1. Understand the differences between the FDA and USDA as it pertains to regulatory oversight.
2. Initiate and develop understanding of microorganisms playing a significant role in the production, processing, fermentation shelf life and safety of various foods.
3. Understand how to detect and quantify microbiological organisms of concerning using various laboratory testing methodologies.
4. Understanding the importance of PCQI as it pertains to FSMA.
5. Have a solid foundation of all of the steps and processes of PCQI.
6. Successfully developing a food safety plan from either a farm, processor, or packing industry perspective.

## **Assignments**

### **Reading:**

Students will read Chapter 2 from Food Microbiology An Introduction entitled Microbial Growth, Survival, and Death in Foods

### **Writing:**

Students will write up a comprehensive Food Safety Plan from either the farm, processing plant, or packing plant perspective for a food commodity of their choice.

### **Homework:**

Students will have to explain differences of pathogenic bacteria in terms of characteristics, environmental sources, and virulence factors and mechanisms of pathogenicity.

### **Lab Content:**

Students will have to properly pour a media plate, successfully streak a sample on the media plate, and then properly enumerate the sample on the media plate.

**TEXTS AND SUPPLIES:**

Textbooks may include, but are not limited to:

**TEXTBOOKS:**

1. Barach, J.T., and Harman, M.M.. HACCP A Systematic Approach to Food Safety.. 5th ed. Grocery Manufacturers Association, 2015, ISBN: 9780937774229
2. Matthews, K.R., Kniel K.E, and Monteville T.J.. Food Microbiology An Introduction. 4th ed. ASM Press, 2017, ISBN: 9781555819385

**MANUALS:**

**PERIODICALS:**

**MATERIALS FEE: YES**

FEE CODE	FEE AMOUNT
M001	30.00

**OTHER:**

**Distance Ed**

**SLO: <http://cos.edu/CO318>**

[ASCI 202- Applied Food Safety Mgmt. SLO's](#)

**ORIGINATOR: Russell McKeith**

**DATE: 12/16/2017**